

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
21 October 2004 (21.10.2004)

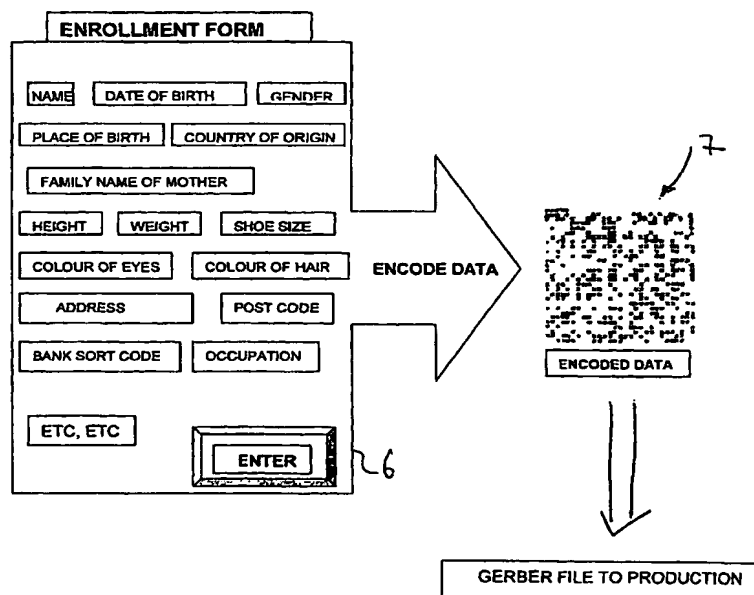
PCT

(10) International Publication Number  
**WO 2004/090906 A3**

- (51) International Patent Classification<sup>7</sup>: **G06K 9/00**, G11C 11/00
- (21) International Application Number: PCT/GB2004/001622
- (22) International Filing Date: 14 April 2004 (14.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0308594.1 14 April 2003 (14.04.2003) GB
- (71) Applicant (for all designated States except US): **PERSONAL BIOMETRIC ENCODERS LIMITED** [GB/GB]; Flat 1, 11 North Common Road, Ealing Common, London W5 2QB (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **ROSS, William, Leslie** [GB/GB]; Flat 1, 11 North Common Road, Ealing Common, London W5 2QB (GB).
- (74) Agent: **VLECK, Jan, Montagu**; Reddie and Grose, 16 Theobalds Road, London WC1X 8PL (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report

[Continued on next page]

(54) Title: SYSTEM FOR ENCODING AND/OR DECODING DATA



(57) Abstract: A memory device comprising an array of bits or binary units (2), the bits (2) being defined by a plurality of first conductors (4) and either a second conductor or a plurality of second conductors (5) overlying and separated from the first conductors, each bit (2) including a cross-over point (9) between one of the first conductors (4) and the second conductor (5), or one of the second conductors (5), and wherein a selection of the bits (2) also include a signal bridge connecting the first (4) and second (5) conductors at each of the respective selected pixels.

WO 2004/090906 A3



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(88) Date of publication of the international search report:**  
16 December 2004

# INTERNATIONAL SEARCH REPORT

PCT/GB2004/001622

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06K9/00 G11C11/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06K G11C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 01/88837 A (FIDELICA MICROSYSTEMS INC) 22 November 2001 (2001-11-22) page 4, line 30 - page 5, line 23; figure 4 page 11, line 8 - page 14, line 5; figures 16A,B	1-8, 16, 17 9-15
X A	US 4 582 985 A (LOEFBERG BO) 15 April 1986 (1986-04-15) column 1, lines 1-16  column 4, line 31 - column 7, line 7; figures 1-3,3a	9-15  1-8, 16, 17
X A	WO 98/52146 A (HARRIS CORP) 19 November 1998 (1998-11-19) page 5, line 18 - page 7, line 10; figures 1-3	1-8 9-17
-/--		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*G\* document member of the same patent family

Date of the actual completion of the international search

22 October 2004

Date of mailing of the international search report

04/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3018

Authorized officer

Lindquist, J

# INTERNATIONAL SEARCH REPORT

PCT/GB2004/001622

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 919 947 A (NIPPON ELECTRIC CO)	1-8
A	2 June 1999 (1999-06-02) paragraph '0060! - paragraph '0079!; figures 6,7 -----	9-17

## INTERNATIONAL SEARCH REPORT

PCT/GB2004/001622

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0188837	A	22-11-2001	US 6578436 B1	17-06-2003
			AU 6166101 A	26-11-2001
			TW 525097 B	21-03-2003
			WO 0188837 A1	22-11-2001
			US 2002121145 A1	05-09-2002
			US 2002166388 A1	14-11-2002
US 4582985	A	15-04-1986	SE 425704 B	25-10-1982
			AT 20556 T	15-07-1986
			AU 8273682 A	06-10-1982
			DE 3271822 D1	31-07-1986
			DK 510682 A ,B,	16-11-1982
			EP 0085680 A1	17-08-1983
			JP 5000748 B	06-01-1993
			JP 58500423 T	17-03-1983
			NO 823858 A ,B,	18-11-1982
			SE 8101707 A	19-09-1982
			WO 8203286 A1	30-09-1982
WO 9852146	A	19-11-1998	US 6067368 A	23-05-2000
			AU 7289498 A	08-12-1998
			DE 69813211 D1	15-05-2003
			DE 69813211 T2	19-02-2004
			EP 0983571 A1	08-03-2000
			JP 2002502518 T	22-01-2002
			WO 9852146 A1	19-11-1998
EP 0919947	A	02-06-1999	JP 3102395 B2	23-10-2000
			JP 11155837 A	15-06-1999
			EP 0919947 A2	02-06-1999
			US 6234031 B1	22-05-2001